IN THE CLAIMS:

Please cancel claim 10 without prejudice.

Please amend claims 1 and 11 as indicated below.

A listing of the status of all claims 1-11 in the present patent application is provided below.

1 (Currently Amended). A method for determining an optimal transition-limiting code for use in a multi-level signaling system, the method comprising the steps of:

determining a coding gain for each of a plurality of transition-limiting codes; ~~and~~

selecting one of the plurality of transition-limiting codes having a largest coding gain for use in the multi-level signaling system; and

employing the selected transition-limiting code in the multi-level signaling system to at least reduce a number of full-swing transitions between sequential signals.

2 (Original). The method of claim 1, wherein the plurality of transition-limiting codes reduce or eliminate full-swing transitions between signal levels in the multi-level signaling system.

3 (Original). The method of claim 2, wherein at least some of the plurality of transition-limiting codes have different degrees of reduction or elimination of full-swing transitions between signal levels in the multi-level signaling system.

4 (Original). The method of claim 3, wherein the step of determining a coding gain for each of a plurality of transition-limiting codes comprises the steps of:

a.) selecting a first transition-limiting code having a first degree of reduction or elimination of full-swing transitions;

b.) determining the coding gain of a data transmission over a channel operating at a predetermined data rate in the multi-level signaling system utilizing the first transition-limiting code based at least in part upon the first degree of reduction or elimination of full-swing transitions; and

c.) repeating steps a and b utilizing a second transition-limiting code having a second degree of reduction or elimination of full-swing transitions.

5 (Original). The method of claim 3, wherein the step of determining a coding gain for each of a plurality of transition-limiting codes comprises the steps of:

a.) characterizing a first pulse response for a channel operating at a predetermined data rate in the multi-level signaling system utilizing a first transition-limiting code having a first degree of reduction or elimination of full-swing transitions;

b.) determining the coding gain of a data transmission over the channel using the first transition-limiting code based at least in part upon the first degree of reduction or elimination of full-swing transitions; and

c.) repeating steps a and b utilizing a second transition-limiting code having a second degree of reduction or elimination of full-swing transitions.

6 (Original). The method of claim 1, wherein at least some of the plurality of transition-limiting codes have different sampling rates.

7 (Original). The method of claim 6, wherein the step of determining a coding gain for each of a plurality of transition-limiting codes comprises the steps of:

a.) selecting a first transition-limiting code having a first sampling rate;

b.) determining the coding gain of a data transmission over

a channel operating at a predetermined data rate in the multi-level signaling system utilizing the first transition-limiting code based at least in part upon the first sampling rate; and

c.) repeating steps a and b utilizing a second transition-limiting code having a second sampling rate.

8 (Original). The method of claim 6, wherein the step of determining a coding gain for each of a plurality of transition-limiting codes comprises the steps of:

a.) characterizing a first pulse response for a channel operating at a predetermined data rate in the multi-level signaling system utilizing a first transition-limiting code having a first sampling rate;

b.) determining the coding gain of a data transmission over the channel using the first transition-limiting code based at least in part upon the first pulse response; and

c.) repeating steps a and b utilizing a second transition-limiting code having a second sampling rate.

9 (Original). The method of claim 1, wherein the coding gain for each of a plurality of transition-limiting codes comprises:

a first component based upon a sampling rate of a pulse response for a channel operating at a predetermined data rate in

the multi-level signaling system utilizing the transition-limiting code; and

a second component based upon a degree of reduction or elimination of full-swing transitions between signal levels in the multi-level signaling system utilizing the transition-limiting code.

10 (Cancelled). At least one signal embodied in at least one carrier wave for transmitting a computer program of instructions configured to be readable by at least one processor for instructing the at least one processor to execute a computer process for performing the method as recited in claim 1.

11 (Currently Amended). At least one processor readable ~~carrier~~ storage medium for storing a computer program of instructions configured to be readable by at least one processor for instructing the at least one processor to execute a computer process for performing the method as recited in claim 1.